

A Community Directed Interventional Approach to Promote Breast Self-Examination Through BEHENA Among Women Residing in Rural Villages of Hingna, Nagpur District

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ABSTRACT

Introduction: The practice of breast self-examination (BSE) does not adopt a community-directed approach, and hence lack the influence of community dynamics. Community-directed strategy to promote BSE through Breast Examination Health Education Network Advocator (BEHENA) acknowledges the impact of collective support. **Objectives:** To increase the knowledge and empower women aged ≥ 20 years with the help of BEHENA in correctly performing BSE and to identify the perception and challenges encountered by BEHENA in promoting BSE.

Methods: A mixed-methods study design will be employed, wherein in the first phase, local women satisfying eligibility criteria will be selected as BEHENA and trained in BSE. In the second phase, these BEHENA workers will sensitize and train the study participants in BSE. In the third phase, the participants will be periodically monitored to monitor BSE sustenance practice. Finally, focus group discussions will be conducted to identify their perceptions and challenges encountered in promoting BSE.

Results: An improvement in awareness levels and empowerment of rural women with the skills necessary to perform accurate and effective BSE.

Conclusion: Upon the completion of the project, the best practices and lessons learned during the entire duration of implementation will be documented. The findings of the study will be shared with all the concerned stakeholders.

Keywords: Breast self-examination, Women, Breast cancer, Rural, Health, Community

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INTRODUCTION

Breast cancer has been acknowledged as one of the major public health challenges affecting millions of women across the globe.¹ In-fact, as per the recent estimates released by the World Health Organization (WHO), in the year 2020 alone, almost 2.3 million cases of new women were diagnosed with breast cancer, and 0.68 million women lost their lives due to the disease-associated complications.¹ In addition, it has been estimated that globally breast cancer is the most prevalent form of cancer, as close to 7.8 million women were living with the cancer in the last five years.¹ Further, breast cancer has ubiquitous distribution and has been reported across all nations among women of any age who have attained puberty.¹⁻³ The findings of different studies done in Africa and Ukraine have reported a high prevalence of breast cancer in the study settings.^{2,3}

In Indian settings, breast cancer has been ranked as the most common cancer among women and its incidence continues to rise with time.⁴ The rise in the incidence of breast cancer has been attributed to lifestyle-related factors, including sedentary habits and obesity.⁵ In addition, the presence of a wide range of shortcomings and challenges that together have impacted the screening, diagnosis, and management domains.^{4,5} At the policy level, the absence of a comprehensive national breast cancer screening program plays a defining role in interfering with early diagnosis of cancer.⁶ From the diagnostic perspective, limited access to diagnostic services, disparities in healthcare infrastructure, shortage of healthcare professionals, cultural stigma, etc., have accounted for the diagnosis at the late stage.⁷ Further, lack of awareness and diverse socioeconomic attributes have also interfered with the diagnosis and delivery of effective treatment.⁸

Considering the high prevalence of breast cancer and the associated complications, the need of the hour is to adopt comprehensive strategies to respond to the multifaceted aspects of breast cancer.⁹⁻¹¹ The proposed interventions include strategies to enhance awareness among the general population, implementation of robust screening programs, capacity-building initiatives, improvement in healthcare infrastructure, and community engagement.^{10,12,13} Screening is an effective method to promote early detection and prevention of breast cancer and has been performed through BSE, clinical breast examination, and mammography.^{6,14,15}

BSE is a cost-effective and non-invasive method to screen breast cancer by empowering women to understand their bodies and thereby detect any changes at the earliest.¹⁶ In other words, this method can be easily taught to women and they can start practicing the same without being dependent on healthcare professionals and at their times of convenience.¹⁷ Further, involving locally selected women representatives to train other women in BSE can ensure easy

acceptance among the general population. The findings of a study revealed the utility of role-play in improving the knowledge of breast cancer and motivating women to perform BSE.¹⁷ The BSE method significantly reduces the physical and emotional burden and promotes a culture of self-care among women.¹⁶

There is a paucity of empirical evidence to conclusively suggest the effectiveness of community-directed approaches for improving breast health in rural India.¹⁸ The present study has been designed to contribute valuable insights to the existing body of knowledge. In general, community-directed interventions are often trusted and accepted by the local population, and the Breast Examination Health Education Network Advocator (BEHENA) initiative - a locally selected woman, utilizes this trust to inculcate positive change in health behavior. In order to bring about a sustainable impact beyond the study duration, it is always encouraged to foster a sense of responsibility and community ownership, and thus study aims to contribute to capacity building within the community, as these identified BEHENAs will become the change agent for promoting breast health, and dissemination of necessary knowledge and skills among other women.

Rural women might have less awareness about breast health, breast cancer, and the role of BSE,¹⁸⁻²⁰ and thus involvement of a locally identified BEHENA can bridge the gap. In rural settings, more often than not a delay in diagnosis of breast cancer has been reported either due to poor awareness or limited access to healthcare infrastructure and resources.⁷ Breast self-examination can be customized to the local culture and thus there is a high probability of acceptance and participation by women as it remains in alignment with the beliefs and practices of the community.¹⁷ Moreover, the involvement of BEHENA can significantly aid in the process of community engagement, and account for the development of ownership and sustainability of BSE practices in the long run. These locally selected women can also play a defining role in creating awareness about breast cancer and bridging the scarcity of prevention programs, especially in rural settings.

In addition, these selected representatives can aid in the early detection of breast cancer, which in turn accounts for a significant reduction in the burden of the health sector and an improvement in the quality of life of the affected women. Considering the probability of a lack of adequate healthcare infrastructure or logistics support in rural areas, the empowerment of rural women with the help of selected local representatives can aid in the decentralization of healthcare services.⁷ The implementation of a community-directed intervention can bridge this gap by facilitating early detection of breast cancer through regular BSE.¹⁶

The purpose of the current objective is to increase knowledge about breast self-examination through the BEHENA approach among 80% of the target

population within the first three months of the intervention and to empower 70% of women in correctly performing BSE within six months of the intervention through practical sessions led by BEHENA. In addition, we aim to evaluate the sustained adoption of BSE among the target population, and to identify the perception and challenges encountered by BEHENA in promoting BSE among local women.

METHODOLOGY

Study design and settings: It will be a mixed-methods study conducted among women in the 18-45 years age-group across 12 villages in Hingna Taluka of Nagpur District of Maharashtra, for a period

of three years.

Sample size: The findings of a study done among rural women in India reported that 28.9% of women were aware of BSE.¹⁹ Based on that the sample size will be estimated, with an absolute allowable error of 4%, and assuming a 10% non-response rate, the sample size will be 565.

Methodology: Hingna Taluka has 135 villages, of which 12 villages will be selected randomly using simple random sampling. From each of these selected villages, two women (Eligibility – Married, educated till 10th standard, and preferably in 25-45 years age-group) will be selected by investigators based on their willingness to be a part of the study and a positive attitude to help other women.

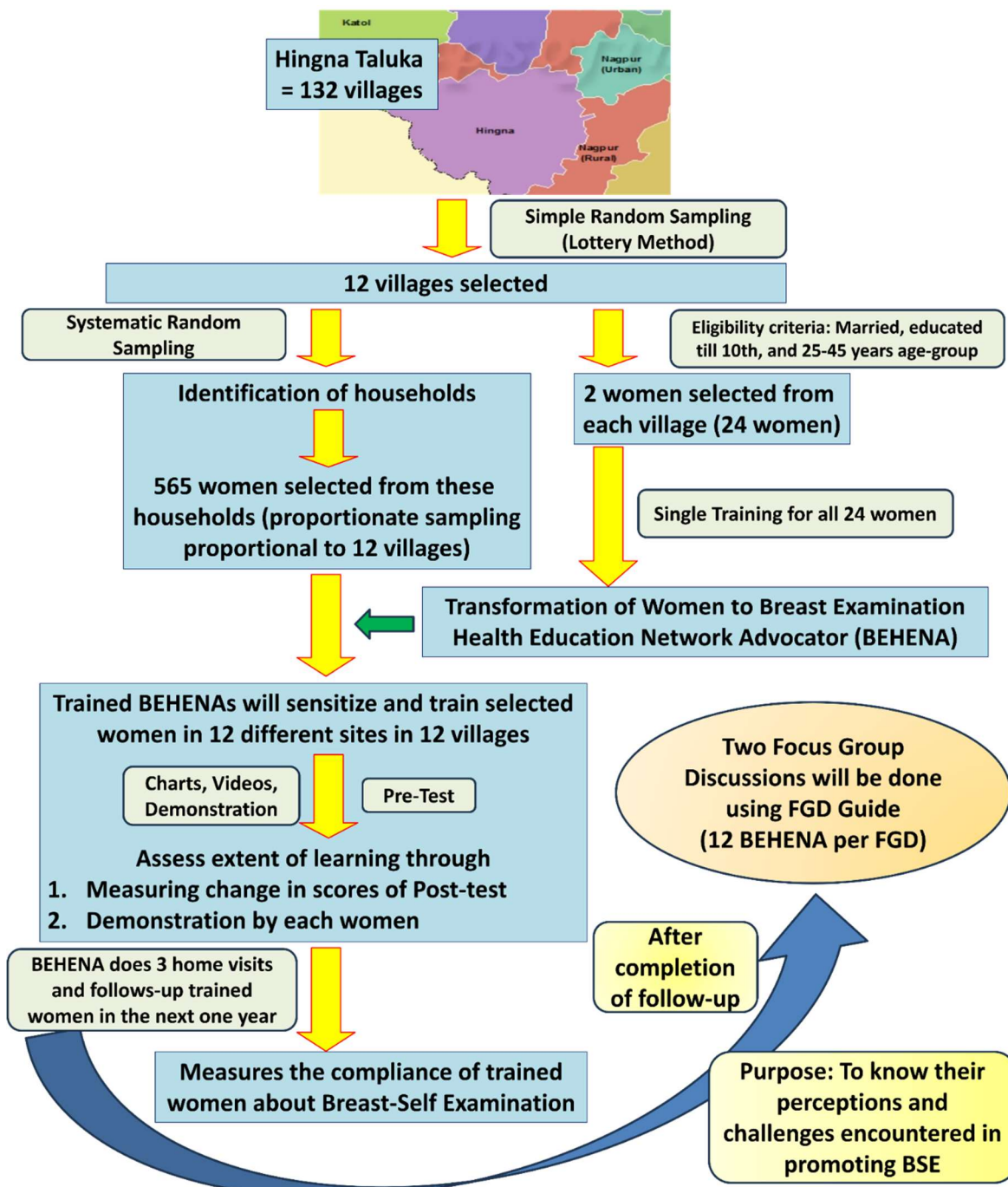


Figure 1: Flowchart of Methodology

These 24 women will be named BEHENA and will be sensitized about BSE and trained in the skill of BSE by experts. In each of the selected 12 villages, systematic random sampling will be used to identify the households. The total sample (women \geq 20 years) from each village will be proportionate to the total sample size (n=565).

These identified women from each household will be invited to a common suitable place, and after explaining the purpose, a validated pre-test questionnaire will be administered to assess the knowledge of local women about BSE. The questionnaire will include questions pertaining to knowledge about breast cancer (like risk factors, symptoms, prevention, treatment, etc.) and knowledge about breast self-examination (such as appropriate time of breast self-examination, frequency of breast self-examination, importance of breast self-examination). Upon the completion of the training, the same set of questions will be used for post-test. The detailed methodology of the study has been depicted in Figure 1.

Subsequently, BEHENA will sensitize the invited women about breast health and BSE using customized charts and IEC materials (culturally sensitive). This will be followed by the conduct of the post-test to estimate the change in the knowledge. The same procedure will be followed in each of the selected villages. Questions will be encouraged from all women and their doubts will be clarified. After the training session, each of these trained women will be asked to individually demonstrate BSE. The same procedure will be followed in each of the selected villages.

The same cohort of trained women will be monitored periodically at intervals of six months – three times for their practice of BSE. This practice of BSE will be assessed on the basis of objective criteria like frequency of self-examination, technique proficiency, knowledge of breast anatomy, awareness of warning signs, documentation of readings, communication with healthcare providers, and integration into health routine. In this follow-up period, BEHENA will sensitize and train other women in the general population as well to promote community awareness and encourage widespread adoption. The same procedure will be followed in each of the selected villages. All 24 BEHENA will be invited for FGD at a common place, and two focus group discussions (FGDs) with 12 participants each will be conducted using standard procedures with the help of an FGD guide and the participants will be asked to share their perceptions and challenges encountered in promoting BSE.

Statistical analysis: Data entry will be done in Microsoft Excel and statistical analysis will be done using SPSS version 16.0 through descriptive statistics (Mean, Standard deviation, Frequency, Percentages). Chi-square test at p-value <0.05 will be used to study the association between sociodemographic variables and knowledge about breast self-examination. For the qualitative data, the goal is to identify and inter-

pret themes that emerged from the data. Inductive analysis through manual thematic content analysis will be done. Verbatim transcription will be done by two independent experts and codes will be identified, and they will discuss with each other to arrive at a consensus, if any difference in views. Codes will be combined to form categories, and subsequently categories will be combined to form specific themes.

Expected study outcomes: Improvement in awareness levels among women in rural villages regarding the importance of regular BSE. Empowerment of women with the skills necessary to perform accurate and effective BSE. Creation of support groups within rural communities, wherein women mutually encourage each other, share their experiences, and reinforce the practice of BSE. Foster positive attitudes and perceptions regarding breast health within the community. Sustained incorporation of BSE into the regular health routines of women residing in rural villages.

CONCLUSION

Upon the completion of the project, the best practices and lessons learned during the entire duration of implementation will be documented. The findings of the study will be shared with all the concerned stakeholders - local community and healthcare providers. In addition, we will evaluate the sustainability of the support group in the community, and identify and provide training to local individuals who can champion and sustain breast health initiatives within the community. Further, we will continue engaging with community members through regular meetings or community-based events.

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